

## CLAIMS

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1. A brake pad assembly for a bicycle having a brake system urging the pad assembly against the rim of the bicycle wheel, the combination comprising:

an elongate support member having brake shoe means unitary therewith; and

brake pad means contained within said brake shoe means, said brake pad means having pre-selected braking characteristics for imparting a variety of desired braking characteristics to said brake pad assembly.

2. The brake pad assembly according to Claim 1 wherein each said brake pad means includes individual brake pads molded as a unitary member, each of said pads having a rim engaging surface generally coplanar with the other and each being formed of a different composition for imparting a different characteristic to said braking assembly.

3. The brake pad assembly according to Claim 1 wherein each said brake pad means includes individual brake pads molded as a unitary member and said brake shoe means and said brake pad means are configured for replacement and interchangeability of said braking pads within said brake shoe means.

4. The brake pad assembly according to Claim 3 wherein said brake shoe means includes locking means for capturing and retaining said interchangeable brake pad means within said brake shoe means aligned relative to one another and relative to said brake shoe means.

5. The brake pad assembly according to Claim 4 wherein said locking means includes a groove in at least one of said brake pad means and a locking pin, said brake shoe means, said groove and

said locking pin being configured for mating coacting engagement whereby said individual brake pad means are captured within said brake shoe means.

6. The brake pad assembly according to Claim 5 wherein the composition of said brake pad means is formed of variations of multi-rubber or elastomeric compounds.

7. The brake pad assembly according to Claim 3 wherein each said brake pads are aligned relative to one another and relative to said brake shoe means, each of said pads having a rim engaging surface generally coplanar with the other and each being formed of a different composition for imparting a different characteristic to said braking assembly.

8. A brake pad assembly for a bicycle having a brake system urging a brake shoe against the rim of the bicycle wheel, the combination comprising:

an elongate support member; and

brake shoe means affixed in alignment to said support member and having a plurality of brake pad portions each having a rim engaging surface generally coplanar with the other and each being formed of a different multi-rubber or elastomeric compound, each compound being pre-selected for imparting a different braking characteristic to said brake system.

9. The brake pad assembly according to Claim 8 wherein each said plurality of pad portions are molded as a unitary member.

10. The brake pad assembly according to Claim 9 wherein said brake shoe includes locking means for capturing and retaining said plurality of pad portions within said brake shoe.

11. The brake pad assembly according to Claim 10 wherein said brake shoe includes a first locking component and at least one of said pad portions includes a second locking component, said first and second locking components being configured for mating coacting engagement whereby said plurality of pad portions are captured and retained within said brake shoe.

12. The brake pad assembly according to Claim 11 wherein said first locking component includes insert means and said second locking component includes at least one of said plurality of pad portions formed as a main body portion having recessed means therein, said insert means and said recessed means configured for mating coacting engagement.

13. The brake pad assembly according to Claim 11 wherein said plurality of pad portions are retained in alignment relative to one another and relative to said brake shoe.

14. The brake pad assembly according to Claim 9 wherein the compound utilized for one of said plurality of pad portions is selected for stopping power and the compound utilized for one other of said portions is selected for grabbing control.

15. A brake pad assembly for a bicycle having a brake system urging a brake shoe against the rim of the bicycle wheel, the assembly comprising:

brake shoe means having a plurality of brake pad portions, said brake shoe means and said pad portions having configuration providing for replacement and interchangeability of said pad portions within said brake shoe means.

16. The brake pad assembly according to Claim 15 wherein each said brake pad portion is molded as an individual unitary member.

17. The brake pad assembly according to Claim 15 wherein each said brake pad portion is formed of a different composition for imparting a different braking characteristic to said braking assembly.

18. The brake pad assembly according to Claim 17 wherein said assembly includes locking means for capturing and retaining said interchangeable brake pad portions within said brake shoe.

19. The brake pad assembly according to Claim 18 wherein said locking means includes first locking means in said brake shoe and second locking means in at least one of said pad portions, said first and second locking means configured for mating coacting engagement whereby said plurality of brake pad portions are captured and retained within said brake shoe.

20. The brake pad assembly according to Claim 18 wherein each said brake pad means has a rim engaging surface generally coplanar with the other, and is aligned relative to one another and relative to said brake shoe.